

**Curriculum Planner –Sciences**

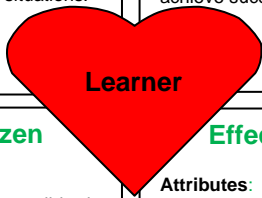
**Totality of the Curriculum**  
 Science is an important part of our heritage and we use its application every day in our lives at work, at leisure and at home. Children participating in the experiences and outcomes in the sciences will: develop a curiosity and understanding of their environment and their place in the living, material and physical world; demonstrate a secure knowledge and understanding of the big ideas and concepts of the sciences; develop skills for learning life and work; develop skills of scientific inquiry and investigation using practical techniques; develop skills in the accurate use of scientific language, formulae and equations; recognise the role of creativity and inventiveness in the development of the sciences; apply safety measures and take necessary action to control risk and hazards; recognise the impact the sciences make on their lives, the lives of others, the environment and on society; develop an understanding of the Earth's resources and the need for responsible use of them; express opinions and make decisions on social, moral, ethical, economic and environmental issues based upon sound understanding; develop as scientific literate citizens with a lifelong interest in the sciences; establish the foundation of more advanced learning and for some, future careers.

**Successful Learner**  
**Attributes:** Enthusiasm and motivation for learning; determination to reach high standards of achievement; openness to new thinking and ideas.  
**Capabilities:** use literacy, numeracy and communication skills; use technology for learning; think creatively and independently; learn independently and as part of a group; make reasoned evaluations; link and apply different kinds of learning in new situations.

**Confident Individuals**  
**Attributes:** self respect; a sense of physical, mental and emotional wellbeing; secure values and belief; ambition.  
**Capabilities:** relate to others and manage themselves; pursue a healthy and active lifestyle; be self aware; develop and communicate their own beliefs and view of the world; live as independently as they can; assess risk and make informed decisions; achieve success in different areas of activity.

**Responsible Citizen**  
**Attributes:** respect for others; commitment to participate responsibly in political, economic, spiritual, social and cultural life;  
**Capabilities:** develop knowledge and understanding of the world and Scotland's place in it; understand different beliefs and cultures; make informed choices and decisions; evaluate environmental, scientific and technological issues; develop informed, ethical views of ethical issues.

**Effective Contributors**  
**Attributes:** an enterprising attitude; resilience; self-reliance.  
**Capabilities:** Communicate in different ways and settings; work in partnership and teams; take the initiative and lead; apply critical thinking in new contexts; create and develop; solve problems.



**Values**  
 Compassion Faithfulness  
 Forgiveness Integrity  
 Justice Peace  
 Respect Service

**Experiences and Outcomes (Es & Os)**  
 Es and Os drive curricular forward planning and assessment. Clear learning intentions and success criteria are formulated from the outcomes and shared with learners.  
**Key resources:** School curriculum overview linking outcomes where appropriate and highlighting topics to be taught to ensure progression of knowledge and skills. Primary Science, Glow Cook-a-longs, Body work Glasgow Science Centre, Powerwise and Food Technology all enhance the learning experiences for children.

**Personal Support**  
 Curriculum planning enables staff to identify skills being developed and appropriate success criteria given to meet individual needs. Personal feedback is given throughout the working week. Termly evaluations highlight particular strengths or areas for development and then impact on next term's planning. Cooperative learning enables pupils to work together, supporting each others' learning. Children with specific needs have a class support plan or an ASP, reviewed termly and shared with all partners including parents and carers.

**Assessment**  
 Assessment in the sciences will focus on children's knowledge and understanding of key scientific concepts in the living, material and physical world, inquiry and investigate skills, scientific analytical and thinking skills, scientific literacy and general attributes. Teachers gather evidence of progress as part of day-to-day learning and specific assessment tasks are also important in assessing progress at key points of learning.

**Learning and Teaching**  
**Pedagogy:** active learning and planned, purposeful play, development of problem solving skills and analytical thinking skills development of scientific practical investigation and inquiry, use of relevant contexts, familiar to young people's experiences, appropriate and effective use of technology, real materials and living things, building on the principles of Assessment is for Learning, collaborative learning and independent thinking, emphasis on children explaining their understanding of concepts, informed discussion and communication.  
**Learning intentions and Success Criteria:** The concepts of L.I. and S.C. will be evident throughout the whole school. From Primary 1 to Primary 7 the L.I. will be displayed for pupils and staff. The L.I. will highlight the learning taking place and the success criteria should be specific to enable pupils to be successful in their learning.  
**Formative Assessment:** L.I. and S.C. will be displayed in all classes. Pupils should refer to them throughout learning and understand them clearly. AIFL approaches are used to assess understanding. Traffic lighting is used on written pieces to self, peer and teacher assess.

- Entitlements**
1. Every child and young person is entitled to experience a curriculum which is coherent from 3-18.
  2. Every child and young person is entitled to experience a broad general education.
  3. Every young person is entitled to experience a senior phase where he or she can continue to develop the four capacities and also obtain qualifications.
  4. Every child and young person is entitled to develop skills for learning, skills for life, and skills for work with a continuous focus on literacy and numeracy and health and wellbeing.
  5. Every child and young person is entitled to personal support to enable them to gain as much as possible from the opportunities which *Curriculum for Excellence* can provide.
  6. Every young person is entitled to support in moving into a positive and sustained destination.

**Principles:** Challenge and Enjoyment; Breadth; Progression; Depth; Personalisation and Choice; Coherence; Relevance; Teachers highlight planners to reflect the principle(s) that is being planned.